J. Exp. Zool. India Vol. 23, No. 1, pp. 249-251, 2020 | www.connectjournals.com/jez | *ISSN 0972-0030*

COMPARATIVE STUDY OF SILKWORM REARING PERFORMANCE UNDER DIFFERENT AGRO-CLIMATIC ZONES OF KASHMIR AND LADAKH

Khursheed A. Dar*, K. A. Sahaf, N. A. Ganie Afiffa, S. Kamili and S. A. Mir

Collee of Temperate Sericulture, Mirgund
Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir, P Box No.674, GPO Srinagar - 190 001, India.
*e-mail : khursheedseri@yahoo.com

(Received 14 July 2019, Revised 18 October 2019, Accepted 29 October 2019)

ABSTRACT : The present investigations on "Comparative study of silkworm rearing performance under different agro-climatic zones of Kashmir and Ladakh" were carried out during 2012 and 2013. Though, silk worm rearing was successful under all the three zones, Pattan showed comparatively better performance in terms of all the rearing parameters like larval duration, larval weight, single cocoon weight, single shell weight, shell ratio, cocoon yield by number, cocoon yield by weight, pupation rate, average filament length, denier, raw silk percentage and renditta followed by Gurez and Kargil.

Key words : Silkworm, rearing, Kargil, agro climatic zones.

INTRODUCTION

The State of Jammu and Kashmir is well known for the production of quality mulberry silk because of its salubrious temperate climate, which is favourable for the bi-voltine silk production. Cocoon production in the State during 2013-14 has been 921 MT and raw silk production as 122 MT (Anonymous, 2013b). Keeping urbanisation and climate change in view, need of hour is to introduce scientific mulberry cultivation and the silkworm rearing in Far-flung and border areas and make people aware about the benefits of sericulture for their sustainable income. The practice of raising silk cocoon through silkworm rearing holds a big promise for stake holders who can very easily attend to other agriculture based pursuits given the fact that the sericulture is a subsidiary occupation. In the present study, two remote areas of Kashmir and Ladakh having different altitudes *i.e.* Gurez and Kargil have been selected for understanding the possibility of introduction of sericulture in these areas. In both the areas good mulberry plantation is available and population exists having poor livelihood options.The altitude of Kargil is 8000 ft asl and that of Gurez is 1500 ftasl. Therefore, in order to pave way for introduction of sericulture in these newer belts as well as ensure livelihood security of tribals in these areas study was undertaken.

MATERIAL AND METHODS

The study was conducted on mulberry genotype Goshoerami by feeding the leaves of this genotype to silkworm hybrid *i.e.* $SH_6 \times NB_4D_2$ at each agro-climatic zones. The experiment was laid in Completely Randomized Block Design with three replications. The experimental started with brushing of 20 disease free layings of silkworm seed at each location. Mass rearing was conducted up to third moult and thereafter 250 worms were retained per replication. The silkworm rearing was conducted as per the recommended procedure by Krishnaswami (1970) and following parameters were recorded.

Total larval duration (h), Larval weight (g), Single cocoon weight (g), Single shell weight (g), Shell ratio (%), Cocoon yield/10000 larvae, Pupation rate (%), Average filament length, Denier, Renditta (kg).

RESULTS AND DISCUSSION

The results ofrearing performance of silkworm under three different agro-climatic zones are presented in Table 1.

The pooled data showed shortest (695 hr) larval period of the silkworm at Pattan followed by Gurez (766 hr) and highest (772 hr) at Kargil site. Larval weight was found maximum (54 g) at Pattan followed by Gurez (45 g) and lowest (43 g) at Kargil. Single cocoon weight was